

Land-use Impacts in the Elk Creek Watershed in Chilliwack: A Multi-media Public Information System

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Abstract

Over the past 5 years a number of federal, provincial, and municipal agencies and UBC conducted a variety of research projects in the Elk Creek watershed near Chilliwack. Intensive agriculture is dominant in the lower portion of the watershed and the steep headwaters are under forest cover, which is slated for urban development in the near future. A multi-media CD-ROM was created to combine the results of all the studies and to produce an interactive information system for community education and for providing a scientific basis to assist decision making. The CD-ROM provides up to date information on the status of biophysical resources and the impact of land use on water quality and aquatic resources. The status of the atmospheric pollutants in the watershed and the surplus nutrients applied to the land were quantified to show the external inputs on the land and water resources. The results of the watershed assessment are in the form of interactive GIS maps, images and graphs and management challenges are highlighted. The results show that the aquatic resources are under stress and the cumulative effect of all land uses is clearly visible in the downstream direction of the stream.